

Claims

1. A fusion protein comprising (a) a ligand-binding domain, (b) a domain that associates when a ligand binds to the domain of (a), and (c) a domain comprising a cytokine receptor or a part thereof that imparts proliferation activity to a cell upon the association.
2. The fusion protein of Claim 1, wherein the "domain comprising a cytokine receptor or a part thereof that imparts proliferation activity to a cell upon the association" is derived from a G-CSF receptor.
3. The fusion protein of Claim 1, wherein the "ligand-binding domain" is derived from a steroid hormone receptor.
4. The fusion protein of Claim 3, wherein the steroid hormone receptor is an estrogen receptor.
5. A vector comprising a gene encoding the fusion protein of Claim 1.
6. A cell carrying the vector of Claim 5.
7. A method for selectively proliferating the cell of Claim 6, which comprises exposing the cell of Claim 6 to a ligand capable of acting on the "ligand-binding domain" of the fusion protein of Claim 1.
8. A vector comprising a desired exogenous gene and a gene encoding a fusion protein comprising (a) a ligand-binding domain, (b) a domain that associates when a ligand binds to the domain of (a), and (c) a domain that imparts proliferation activity to a cell upon the association.
9. The vector of Claim 8, wherein the "domain that imparts proliferation activity to a cell upon the association" is derived

FOI b7D b7C b7E b7F b7G b7H b7I b7J b7K b7L b7M b7N b7O b7P b7Q b7R b7S b7T b7U b7V b7W b7X b7Y b7Z

from a cytokine receptor.

10. The vector of Claim 9, wherein the cytokine receptor is a G-CSF receptor.

11. The vector of Claim 8, wherein the "ligand-binding domain" is derived from a steroid hormone receptor.

12. The vector of Claim 11, wherein the steroid hormone receptor is an estrogen receptor.

13. The vector of Claim 8, wherein the "gene encoding a fusion protein" and the "exogenous gene" are located on the same molecule.

14. The vector of Claim 8, wherein the "gene encoding a fusion protein" and the "exogenous gene" are located on separate molecules.

15. A cell carrying the vector according to any one of claims 8 to 14.

16. A method for selectively proliferating the cell of Claim 15, which comprises exposing the cell of Claim 15 to a ligand capable of acting on the "ligand-binding domain" of the fusion protein encoded by the gene contained in the vector of Claim 8.

17. A kit comprising (a) the vector of Claim 5 or Claim 8, and (b) a ligand capable of acting on the "ligand-binding domain" of the fusion protein encoded by the gene contained in the vector.

0990591.04301
FOET 20 16550660